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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/679,042	10/02/2000	Wajih Dalal	M-9497 US	4713

7590 01/28/2004

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EXAMINER

CHAUDRY, MUJTABA M

ART UNIT	PAPER NUMBER
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2133

DATE MAILED: 01/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/679,042

Applicant(s)

DALAL ET AL.

Examiner

Mujtaba K Chaudry

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 October 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Drawings

The corrected or substitute drawings were not received.

The drawings are objected to because:

- In Figures 1-2 the margins need to be corrected such that the entire figure may be seen.
- A portion of Figure 2 is cut out due to the holes. The font size should be the same—12pt.
- The dark background effect in Figure 3 should be removed for clarity.
- In Figure 4, it is difficult and in some instances impossible to read what is written or shown.
- Essentially, formal drawings are required with proper margins and viewable information.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

The corrected or substitute specification were received on December 12, 2003. The specification is accepted.

Response to Amendment

Applicants' arguments/amendments with respect to amended claims 2 and 4 and original claims 1, 3 and 5-7 filed December 12, 2003 have been fully considered but are not persuasive. The Examiner would like to point out that this action is made final.

Applicants contend, "Turnquist (prior art of record) does not teach a plurality of fan out elements coupled to receive data pulses from the relays and to distribute the data pulses to a plurality of latches." The Examiner disagrees. Turnquist teaches an event-based test system is configured to test an electronics device under test (DUT) by supplying a test signal to the DUT and evaluating an output of the DUT at a timing of a strobe signal. The event based test system includes an event memory for storing timing data of each event formed with an integer multiple of a reference clock period and a fraction of the reference clock period wherein the timing data represents a time difference between a current event and a reference point, an address sequencer for generating address data for accessing the event memory, a timing count and scaling logic for generating an event start signal, an event generation unit for generating each event based on the event start signal and data indicating the fraction of the reference clock period, and a host computer for controlling an overall operation of the event based test system. In particular, to Applicants arguments, Turnquist teaches (Figure 8 and col. 10, line 19—col. 11, lines 1-43) a demultiplexer 82, a comparator 83, variable delay circuits 85-87, an OR circuit 88, SR flip-flops 91 and 92, a pin driver 93, variable delay circuits 95-97, flip-flops 102-104, an OR circuit 105 and a flip-flop 106. The Examiner would like to point out that Applicants define in the specification (page 4, lines 26-28) of the present application, "Fan out buffers 22a-22c each

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accept a single input stream of bits and output two copies of those bits." In Figure 8, Turnquist teaches a demultiplexer which is analogous to the functionality of the fan out buffer of the present application, since both take in a single input and output multiple outputs. Furthermore, Turnquist teaches that the output of the pin driver 93 is to provide a test signal to the DUT pin when the DUT pin is an input pin. The desired amplitude and slew rate of the test signal are produced by the pin driver 93. The comparator 83 receives a response output of the DUT when the DUT pin is an output pin. The comparator 83 provides the analog function to compare the analog level of the connected DUT pin with preset voltage ranges and to determine in which range the DUT pin resides. The three possible ranges are, level "High", level "Low", and high impedance "Z" as in FIG. 8. The demultiplexer 82 receives the event start from the timing count and scaling logic of FIG. 6 or 7 and the event type data from the event type RAM 73 in the event memory 30. The event type data is applied to the select terminal of the demultiplexer 82. Thus, the event start signal is demultiplexed to the corresponding event processor having the variable delay circuit specified by the event type. When the event type data indicates that the current event (Event 1) is "Drive DUT Pin High", the event start signal is sent to the variable delay 85 wherein it is delayed by the time defined by the vernier sum. Thus, the output of the variable delay circuit sets the SR flip-flop 91. This will cause the pin driver 93 to drive the connected DUT pin to logic one. When the event type data indicates that the current event (Event 2) is "Drive DUT Pin Low", the event start signal is sent to the variable delay 86 wherein it is delayed by the time defined by the vernier sum. Thus, the output of the variable delay circuit (Event 2 such as shown in FIG. 5J) resets the SR flip-flop 91. This will cause the pin driver 93 to drive the connected DUT pin to logic zero.

Claim Rejections - 35 USC § 103

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Turnquist et al. (USPN 6532561 B1). See paper No. 11.

The Examiner disagrees with the Applicants and maintains rejections with respect to amended claims 2 and 4 and original claims 1, 3 and 5-7. All arguments have been considered. It is the Examiner's conclusion that amended claims 2 and 4 and original claims 1, 3 and 5-7 are not patentably distinct or non-obvious over the prior art of record. See paper No. 11.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

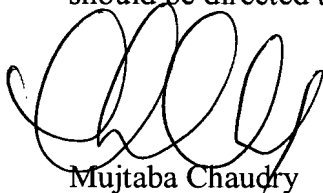
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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

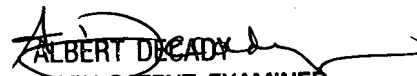
Any inquiries concerning this communication should be directed to the examiner, Mujtaba Chaudry who may be reached at 703-305-7755. The examiner may normally be reached Mon – Thur 7:30 am to 4:30 pm and every other Fri 8:00 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, please contact the examiner's supervisor, Albert DeCady at 703-305-9595. The fax phone number for the organization where this application is assigned is 703-746-7239.

Any inquiry of general nature or relating to the status of this application or proceeding should be directed to the receptionist at 703-305-3900.



Mujtaba Chaudry
Art Unit 2133
January 14, 2004



ALBERT DECADY
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